No. 200300038

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

DLF International Seeds

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BLUEGRASS, KENTUCKY

'Ulysses'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of Washington, D.C. this fifth day of June, in the year two thousand and eight.*

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions*

Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER
DLF International Seeds

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME
Pp H7832

3. VARIETY NAME
Ulysses

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
PO Box 229/175 West H Street
Halsey, OR 97348, USA

5. TELEPHONE *(include area code)*
541-369-2251

6. FAX *(include area code)*
541-929-4087

FOR OFFICIAL USE ONLY

PVPO NUMBER
200300038

FILING DATE
11/21/2002

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*
Corporation

8. IF INCORPORATED, GIVE STATE OF INCORPORATION
Oregon

9. DATE OF INCORPORATION
1972

FEES RECEIVED

FILING AND EXAMINATION FEES:
$ 2,705.00
DATE 11/21/2002

CERTIFICATION FEE:
$ 768.00
DATE 4/22/2008

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*
Stephen Johnson
PO Box 229/175 West H Street
Halsey, OR 97348, USA

11. TELEPHONE (Include area code)
541-369-2251

12. FAX (Include area code)
541-929-4087

13. E-MAIL
STEVEJ@intlseed.com

14. CROP KIND *(Common Name)*
Kentucky bluegrass

16. FAMILY NAME *(Botanical)*
Graminae

15. GENUS AND SPECIES NAME OF CROP
Poa pratensis

17. IS THE VARIETY A FIRST GENERATION HYBRID?
☐ YES ☑ NO

18. DOES THE VARIETY CONTAIN ANY TRANSGENES? ***(OPTIONAL)***
☐ YES ☑ NO
IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERCIALIZATION. _____

19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)
- a. ☑ Exhibit A. Origin and Breeding History of the Variety
- b. ☑ Exhibit B. Statement of Distinctness
- c. ☑ Exhibit C. Objective Description of Variety
- d. ☑ Exhibit D. Additional Description of the Variety *(Optional)*
- e. ☑ Exhibit E. Statement of the Basis of the Owner's Ownership
- f. ☑ Exhibit F. Declaration Regarding Deposit
- g. ☑ Voucher Sample *(3,000 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
- h. ☑ Filing and Examination Fee ($4,382), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)*
- ☐ YES *(If "yes", answer items 21 and 22 below)*
- ☑ NO *(If "no", go to item 23)*
- ☐ UNDECIDED

21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES?
☐ YES ☐ NO
IF YES, WHICH CLASSES? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO
IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS.
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED
(If additional explanation is necessary, please use the space indicated on the reverse.)

23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?
☐ YES ☑ NO
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?
☐ YES ☑ NO
IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER		SIGNATURE OF OWNER	
Stephen W Johnson			
NAME *(Please print or type)*		NAME *(Please print or type)*	
Stephen Johnson			
CAPACITY OR TITLE	DATE	CAPACITY OR TITLE	DATE
Director of Research	November 20, 2002		

ST-470 (02-06) designed by the Plant Variety Protection Office using Word 2003.

#200300038

(See reverse for instructions and information collection burden statement)

GENERAL INSTRUCTIONS: To be effectively filed with the Plant Variety Protection Office (PVPO), **ALL** of the following items must be **received** in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E, F; (3) for a tuber reproduced variety, verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in an approved public repository; and (4) payment by credit card or check drawn on a U.S. bank for $4,382 ($518 filing fee and $3,864 examination fee), payable to "Treasurer of the United States" *(See Section 97.6 of the Regulations and Rules of Practice).* **NEW:** With the application for a seed reproduced variety **or by direct deposit soon after filing**, the applicant must provide at least 3,000 viable untreated seeds of the variety *per se*, and for a hybrid variety at least 3,000 untreated seeds of each line necessary to **reproduce** the variety. Partial applications will be held in the PVPO for not more than 90 days; then returned to the applicant as un-filed. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a payment by credit card or check payable to "Treasurer of the United States" in the amount of $768 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)*

Plant Variety Protection Office
Telephone: (301) 504-5518 **FAX:** (301) 504-5291
General E-mail: PVPOmail@usda.gov
Homepage: http://www.ams.usda.gov/science/pvpo/PVPindex.htm

SPECIFIC INSTRUCTIONS:
To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and **provide evidence** that the permanent name of the application variety (even if it is a parental, inbred line) has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: U.S. Department of Agriculture, Agricultural Marketing Service, Livestock and Seed Programs, **Seed Regulatory and Testing Branch**, 801 Summit Crossing Place, Suite C, Gastonia, North Carolina 28054-2193 Telephone: (704) 810-8870. http://www.ams.usda.gov/lsg/seed.htm.

ITEM

19a. Give:
(1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;
(2) attach replicated statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, *etc.*

19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

20. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

23. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

24. *See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.*

22. CONTINUED FROM FRONT *(Please provide a statement as to the limitation and sequence of generations that may be certified.)*

23. CONTINUED FROM FRONT *(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*

24. CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)*

Exhibit A:

I. Origin and Breeding History

Ulysses Kentucky Bluegrass

Ulysses Kentucky bluegrass (*Poa pratensis* L.) originated from a cross between the cultivars Julia and Baron. A single plant of Julia was open pollinated by fifteen plants of the cultivar Baron in the winter of 1993, in a greenhouse at Vlijmen, the Netherlands. Environmental conditions prior to and during the pollination were modified to increase sexual reproduction of facultatively apomictic Kentucky bluegrasses (1,2,3). In the summer of 1994 the seed was harvested from Julia and bulked. In the fall, a single plant nursery was established.

The single plants were evaluated and then selected based on distinctness from the parents. The selection criteria was dark green genetic color, crown density and freedom from disease. In the late spring of 1995 these individual hybrids were removed from the nursery and placed in isolation. The plants were harvested independently. In the fall 20 plants from each hybrid line was planted in space rows in isolation for determination of apomixis level. Each hybrid line was given a Pp H designation. One such designation was Ulysses.

In the spring of 1996, any plant that appeared to be different was removed. Only highly apomictic lines were harvested and the seed bulked. In the fall of 1997, 20 plants of Ulysses were again planted in a spaced plant nursery to check for stability of apomixis. In the summer the 20 plants of Ulysses were harvested in bulk and designated Ulysses (S0). In the fall of 1997, a turf trial was established to determine turf quality.

In the fall of 1998, a breeder seed increase block was established of Ulysses in Albany, Oregon. The block contained 2,740 plants. In the spring of 1999, 126 plants were removed (4.5%). The plants that were removed showed less vigor and had poor plant health. It is not know if the lack of vigor was due to environmental factors, or an environmental by genetic interaction. These types were not observed during the subsequent generations. The remaining plants were harvested in bulk and designated Ulysses, breeder seed.

References:

1. Bashaw, E.C., and C.R. Funk. 1987. Apomictic grasses. P. 40-82 *In* F. Lemaire (ed.) Proc. Int. Turfgrass Res. Conf., 5th Avignon, France. INRA Publ., Versailles.

2. Hintzen, J.J., and A.J.P. van Wijk. 1985. Ecotype breeding and hybridization in Kentucky bluegrass (*Poa pratensis* L.). P. 213-219. *In* F. Lemaire (ed.) Proc. Int. Turfgrass Res. Conf., 5th Avignon, France. INRA Publ., Versailles.

3. Pepin, G.W., and C.R. Funk. 1971. Intraspecific hybridization as a method of breeding Kentucky bluegrass for turf. Crop Sci. 11:445 - 448.

II. Breeder Seed Maintenance:

A breeder seed stock field was planted in isolation in 1998. Breeder seed was harvested in bulk (4.5 % rogued), in 1999 and is maintained in cold storage. The plants that were removed showed less vigor and had poor plant health. It is not know if the lack of vigor was due to environmental factors, or an environmental by genetic interaction. These types were not observed during the subsequent generations. Seed propagation is limited to three generations, one each of foundation, registered, and certified.

III. Stability and Uniformity:

Ulysses is a stable, uniform cultivar. Stability and uniformity has been observed in breeder and foundation seed multiplications and turf plots. Neither off-type or variant plants have been observed in the multiplication process.

Exhibit B:

Novelty Statement for Ulysses Kentucky Bluegrass

The following summary outlines the distinctive characteristics of Ulysses. The novelty of Ulysses is based on the unique combination of these characteristics. Ulysses is most similar to Baron, but may be differentiated by using the following criteria;

1) The heading date and anthesis date for Ulysses is later than Baron (tables 1A, 1B).

2) Ulysses has a darker genetic color compared to Baron (tables 1A, 1B, 5A, 5B).

3) The mature plant height for Ulysses is greater compared to Baron (tables 1A, 1B).

4) The flag leaf characteristics; length and height are longer for Ulysses than Baron (tables 1A, 1B).

5) The leaf blade characteristics; length and height are longer for Ulysses than Baron (tables 1A, 1B).

6) The length of the branches (long, medium, short) of the lower most whorl are longer for Ulysses than Baron (tables ~~1~~2A, ~~1~~2B). (BT: 12/18/07)

7) Ulysses has a greater distance between the lower most whorls compared to Baron (tables ~~1~~2A, ~~1~~2B). (BT: 12/18/07)

8) Ulysses has a longer panicle from the lower most whorl to the apex (tables ~~1~~2A, ~~1~~2B, illus.1). (BT: 12/18/07)

9) Ulysses has an erect growth habit compared to Baron (tables 3A, 3B).

10) Ulysses expresses ~~more~~ fewer plants with the panicle collar closed (42%) compared to Baron (tables 3A, 3B). (BT: 12/18/2007)

11) The weight of 10,000 seeds is less for Ulysses than Baron (tables 3A, 3B).

12) Ulysses exhibits a lower frequency of plants with distinct intermediate nerves on the lemma compared to Baron (tables 4A, 4B).

13) Ulysses has a higher percentage of plants with four or less branches on the lower whorl compared to Baron (table 7).

14) Ulysses expresses few plants with six or more branches on the lower whorl compared to Baron (table 7).

REPRODUCE LOCALLY. Include form number and date on all reproductions.

Form Approved - OMB No. 0581-0055

US. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY PROGRAM
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT C (BLUEGRASS)

OBJECTIVE DESCRIPTION OF VARIETY
BLUEGRASS
(*Poa* spp.)

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
~~Mon Gen Seed Research, LLC~~ DLF International Seeds	Pp H7832	Ulysses

ADDRESS (Street and No., or R.F.D. No., City, State and ZIP Code)
~~[redacted] Columbus St. SW~~ PO Box 229/175 West H Street
~~Albany, Oregon~~ Halsey, OR 97348
~~97321~~ USA
(BT: 11/14/2007)

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PVPO NUMBER
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Select the number which characterizes the variety in the features described below. For measured characteristics use leading zeros as necessary in order to fill all blanks (e.g. 089). Those characteristics marked with a star * are preferred to be recorded. Any others should be recorded to help establish novelty or uniqueness. Characteristics described, including numberical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Royal Horticultural Society or any recognized color fan may be used to determine plant colors; designate the system used: _____. Describe location of test area, conditions, and number of plants used: See item 15, exhibit C.

1. SPECIES:

|2| 1 = *Poa compressa* 2 = *P. pratensis* 3 = *P. trivialis* 4 = Others (Please Specify): _____

|_|_|_| Chromosome Number

2. ADAPTATION: (0 = Not Tested, 1 = Not Adapted, 2 = Adapted, 3 = Well Adapted)

|3| Northeast |0| Transitional Zone |0| Southeast |3| North Central

|3| Pacific N.W. |0| Intermountain |0| Southwest (CA, AZ) |0| Other (Please Specify): _____

3. MATURITY (At first anthesis): Give test area: Albany, Oregon

|6| 1 = Very Early 2 = Early (Delta, Mystic) 3 = Medium Early (Fylking, Nugget)
4 = Medium late (Newport, Adelphi, Aquila) 5 = Late (Merion, Baron, Enmundi)
6 = Very Late (Pacific)

49.67 days after April 1, Date of First Anthesis

|_|_|	Number of days earlier than ☆|_|	1 = Nugget	2 = Fylking	3 = Delta
	Maturity same as ☆|_|	4 = Merion	5 = Newport	6 = Baron
|3.00|	Number of days later than ☆|6|	7 = Mystic	8 = Sabre	9 = Reubens

4. PLANT HEIGHT (At maturity - Average of longest shoot of 10 plants from soil surface to top of panicle): *Test Area* Albany, OR

☆|4| 1 = Short 2 = Medium short (Baron, Fylking, Mystic)
3 = Medium tall (Merion, Adelphi) 4 = Tall (Delta) 5 = Very tall

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☆|74.07| cm Height

| |	cm Shorter than	☆| |	1 = Nugget	2 = Fylking	3 = Delta
	Height same as	☆| |	4 = Merion	5 = Newport	6 = Baron
|16.44|	cm Taller than	☆|6|	7 = Mystic	8 = Sabre	9 = Reubens

5. GROWTH HABIT:

☆|3| Habit: 1 = Prostrate (Nugget) 2 = Semiprostrate (Merion) 3 = Erect (Delta)

|23.27| cm Amount of spread by rhizomes in 1 year (give test area Albany, Oregon)

6. LEAF BLADE:

☆|4| Green color: 1 = Light green (Mystic) 2 = Medium green (Fylking, Bonnieblue)
3 = Moderately dk. green (Merion, Adelphi) 4 = Very dk. green (Nugget, Glade, Enmundi)

☆|4| Bluegreen color: 1 = Not bluegreen (Mystic, Touchdown, Parade) 2 = Moderately bluegreen (Merion, A-34)
3 = Bluegreen (Nugget, Enmundi, Adelphi) 4 = Stongly bluegreen (Majestic)

|2| Winter color: 1 = Light green 2 = Dark green 3 = Light purple
4 = Dark purple 5 = Not purple 6 = Not green or purple

☆|1| Hairs upper side: 1 = Absent (Nugget) 2 = Sparse (Merion) 3 = Dense (Park)

|1| Hairs lower side: 1 = Absent (Fylking, Merion 2 = Sparse 3 = Dense (Nugget)

|2| Luster upper side: 1 = Shiny (Eclipse, Enmundi) 2 = Dull (Aquila, Parade)

|1| Luster lower side: 1 = Shiny (Mystic, Enmundi) 2 = Dull (Barbie, Eclipse)

☆|1| Margin hairs (Fringe on Margin or Base): 1 = Absent (Delta) 2 = Present (Fylking, Merion)

☆|4| Width: 1 = Very fine (Mystic) 2 = Fine (Nugget) 3 = Medium (Merion, Fylking)
4 = Broad (Adelphi, Baron) 5 = Very broad (Monopoly)

|5.67| mm Width (flag leaf)

| |	mm Narrower than	☆| |	1 = Nugget	2 = Fylking	3 = Delta
	Width same as	☆|6|	4 = Merion	5 = Newport	6 = Baron
| |	mm Wider than	☆| |	7 = Mystic	8 = Sabre	9 = Reubens

|24.40| cm Length (flag leaf)

| |	cm Shorter than	☆| |	1 = Nugget	2 = Fylking	3 = Delta
	Length same as	☆| |	4 = Merion	5 = Newport	6 = Baron
|4.50|	cm Longer than	☆|6|	7 = Mystic	8 = Sabre	9 = Reubens

|1| Position of flag leaf (angle to stem): 1 = Appressed 2 = Open angle, yet stiff 3 = Nodding

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7. LEAF SHEATH:

|15.23| c mm sheath length (8/8/06 BS)

☆|1| Seedling Color (base of sheath): 1 = Green (Nugget, Merion) 2 = Red (Delta)

☆|1| Hairs on Margin: 1 = Absent (Fylking) 2 = Present (Nugget)

☆|1| Margin Roughness (to touch): 1 = Smooth (Delta) 2 = Rough (Sabre)

|1| Hairs on Surface: 1 = Absent ( ) 2 = Present (Nugget)

|1| Surface Roughness (to touch): 1 = Smooth (Fylking) 2 = Rough (Ram I)

|1| Hairs on both sides just beneath leaf blade (under collar): 1 = Absent (Merion) 2 = Present (Nugget)

☆|2| Hairs on ligule: 1 = Absent (Fylking) 2 = Short (Baron) 3 = Long (Nugget)

|1| Glaucosity: 1 = Absent (Mystic, Enmundi) 2 = Present (Birka)

|1| Keel: 1 = Absent (Ram I) 2 = Present (Adelphi)

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8. PANICLE (Mature Plant):

|51.93| cm Length (Lowest branch whorl to top, for 10 plants) Test Area: Albany, Oregon

|_|_|_| mm Shorter than ☆|_| 1 = Nugget 2 = Fylking 3 = Delta

Panicle same as ☆|6| 4 = Merion 5 = Newport 6 = Baron

|_| mm Longer than ☆|_| 7 = Mystic 8 = Sabre 9 = Reubens

☆|1| Color (at 50% flowering): 1 = Not red (Fylking) 2 = Red (Nugget)

|1| Shape of Rachis (opposite lower side branches): 1 = No bend (Nugget) 2 = Bend (Merion)

☆|1| Collar: 1 = Opened (Nugget) 2 = Closed (Merion)

☆|3| Branches Attitude (Lowest whorl): 1 = Drooping (America, Prato) 2 = Horizontal (Merion) 3 = Ascending (Tundra)

|4| Number of main branches in lowest whorl:

☆|1| Panicle habit: 1 = Nodding (Newport) 2 = Upright (Nugget)

☆|1| Panicle type: 1 = Open 2 = Intermediate 3 = Compact

|2| Anther color (anthesis): 1 = Purple 2 = Yellow 3 = Brown

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9. LEMMA

☆|3| Keel 1 = Glabrous 2 = Slightly pubescent 3 = Pubescent

☆|1| Marginal Nerves 1 = Distinct 2 = Obscure

|1| Intermediate Nerves 1 = Distinct 2 = Obscure

|2| Basal Webbing: 1 = Absent 2 = Scant (Baron) 3 = Copious (Merion)

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10. SEED: (Floret-not dehulled)

☆|2| Apomixis Percentage: 1 = more than 95 2 = 85 to 95 3 = less than 85

SEED (*Continued*)

	Phenol Reaction:	1 = none-lemma removed (Merion) 2 = Beige (Cougar) 3 = Brown (Windsor) 4 = Black (Mystic - 2hrs) 5 = Black (-24hrs)
0.81	mm Width (average of 10)	3.70 mm Length
2.850	Milligrams per 10,000 seed	
800	Milligrams less than ☆6	1 = Nugget 2 = Fylking 3 = Delta
	Weight same as ☆	4 = Merion 5 = Newport 6 = Baron
	Milligrams more than ☆	7 = Mystic 8 = Sabre 9 = Reubens
1	Weight Class (g per 10,000 seed):	1 = Light (<3g Sydsport, Merion) 2 = Medium (3g - 4g Adelphi, Parade) 3 = Heavy (>4g Fylking, Nugget)

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11. ENVIRONMENTAL RESISTANCE:
(0 = Not tested; 1 = Very Susceptible, 2 = Moderately Susceptible, 3 = Moderately Resistant, 4 = Highly Resistant)

0 Cool Temperature (Winter color)	0 Cold (injury)	0 Heat	0 Drought
0 Shade	0 Low Fertility	0 Acid Soil (<pH 5.5)	0 Alkalinity (PH > 7.5)
0 Salinity	0 Soil Compaction	0 Poor Drainage	0 Air Pollution

0 Other (Please Specify): _____

12. DISEASE RESISTANCE:
(0 = Not Tested; 1 = Very Susceptible, 2 = Moderately Susceptible, 3 = Moderately Resistant, 4 = Highly Resistant)

0	Melting-Out *Drechslera poae (Helminthosporium vagans)*	0	Sclerotina *S. borealis*
0	Helminthosporium Leaf Spot *Bipolaris sorokiniana*	0	Stem Rust *Puccinia graminis*
0	Brown Patch *Rhizoctonia solani*	0	Stripe Rust *P. striiformis*
0	Powdery Mildew *Erysiphe graminis*	0	Leaf Rust *P. poae-nemoralis*
0	Strip Smut *Ustilago striiformis*	0	Orange Stripe Rust *P. poarum*
0	Flag Smut *Urocystis agropyri*	0	Pythium Blight *Pythium* spp.
0	Pink Snow Mold *Fusarium nivale*	0	Red Thread *corticium fujciforme*
0	Ergot *Claviceps purpurea*	0	Other (Please Specify): _____
0	Fusarium Blight *Fusarium roseum, F. tricinctum*	0	Other (Please Specify): _____
0	Typhula Blight *Typhula* spp.		
0	Dollar Spot *Sclerotinia homoeocarpa*		

13. INSECTS, NEMATODES, RESISTANCE:
(0 = Not Tested; 1 = Very Susceptible, 2 = Moderately Susceptible, 3 = Moderately Resistant, 4 = Highly Resistant)

0 Chinch Bug *Blissus* spp. (give species: _____)

0 Sod Webworm *Crambus* spp. (give species: _____)

INSECTS, NEMATODES, RESISTANCE (*Continued*)

|0| Bluegrass Billbug *Sphenophorus parvulus*

#200300038

|0| White Grub: Japanese Beetle, Chafers (give species: _____)

|0| Greenbug Aphid *Schizaphis graminum*

|0| Other (Please Specify): _____

|0| Other (Please Specify): _____

14. Give variety or varieties that most closely resemble the application variety. For the following characteristics indicate Degree of Resemblance by placing in the column marked D.R. , one of the following numbers: 1 = Application variety is less than comparison variety; 2 = Same as; 3 = More than, better, greater, darker, more disease resistant, etc.

CHARACTER	VARIETY	D.R.	CHARACTER	VARIETY	D.R.
Maturity-heading	Baron	3	Leaf Width	Baron	2
Height	Baron	3	Leaf Color Spring	Baron	3
Seed Size	Baron	3	Leaf Color Summer	Baron	3
Seed Weight	Baron	1	Leaf Color Winter	Baron	3
Cold Injury			Drought		
Heat			Disease**		
Shade					

***Specify each disease evaluated*

15. ADDITIONAL DESCRIPTION

Describe all characteristics and conditions that cannot be adequately described in this form in Exhibit D.

A morphological nursery designated 99PVPPP1 was established in September of 1999, in Albany, Oregon. Experimental design consisted of 22 entries; 3 replications per entry; 20 plants per replication; for a total of 60 plants per entry. Baron, America, and Unique were used as standards. Plants were established on 2.5 foot centers with a skip row between replications and between entries.

The nursery received 30 pounds of nitrogen per acre rate following establishment and 50 pounds of nitrogen per acre per year in 2000 and 2001. The fertilizer source was 15-15-15 and was applied as a split application with ½ applied in the spring and ½ in the fall. The nursery was sprayed twice each spring, 3 weeks between applications, with Tilt (2 oz/acre rate), to prevent stem rust. One pound of Karmex per acre rate was applied during late summer to prevent emergence of volunteer seedlings.

Data was analyzed using analysis of variance for a randomized complete block design. Means were calculated for each replication and then analyzed.

Exhibit D:

Additional Description

Ulysses Kentucky Bluegrass

Ulysses is an improved turf-type Kentucky bluegrass. Ulysses is later maturing than Cynthia and Baron (tables 1A, 1B). Ulysses has a darker genetic color compared to previously released cultivars like Julia, Limousine, and Baron (tables 1A, 1B, 5A, 5B). Ulysses has a mature plant height greater than Limousine and Baron (tables 1A, 1B). Ulysses expresses a greater spread of rhizomes in one year compared to Limousine (tables 1A, 1B). Ulysses has a longer panicle than Julia or Limousine (tables 1A, 1B). The flag leaf characteristics sheath length, width and length; are greater for Ulysses compared to Cynthia and Limousine (tables 1A, 1B). The flag leaf height of Ulysses is shorter compared to Julia (tables 1A, 1B). Ulysses has a greater leaf blade length and width compared to Cynthia (tables 1A, 1B). Ulysses has a greater leaf blade length and height compared to Julia and Baron (tables 1A, 1B). The leaf blade characteristics sheath length, length and width of Ulysses is greater compared to Limousine (tables 1A, 1B). The lemma length and width is greater for Ulysses compared to Julia and Limousine (tables 2A, 2B). Ulysses has a longer spikelet length compared to Julia and Limousine (tables 2A, 2B). The length of the branches (long, medium, and short) of the lower most whorl are longer for Ulysses compared to Cynthia, Limousine, and Baron (tables 2A, 2B). Ulysses has a longer distance between the lower most whorls than Cynthia, Limousine, and Baron (tables 2A, 2B). The number of spikelets on the longest branch of the lower most whorl is greater than Cynthia and Baron, but less than Julia (tables 2A, 2B). The number of spikelets per panicle for Ulysses is greater than Cynthia, but less than Julia (tables 2A, 2B). The length of the panicle from the lower most whorl to the apex of Ulysses is longer compared to Cynthia, Limousine, and Baron (tables 2A, 2B). Ulysses expresses a more erect growth habit compared to Julia and Baron (tables 3A, 3B). Ulysses exhibits fewer purple anthers compared to Cynthia and Julia (tables 3A, 3B). Ulysses expresses fewer closed collars on the panicle (42%) compared to Julia, Limousine, and Baron (tables 3A, 3B). The weight of 10,000 seeds is less for Ulysses

compared to Cynthia and Baron (tables 3A, 3B). Ulysses has no plants which express red pigmentation on the seedling leaf sheath compared to Cynthia (tables 4A, 4B). Ulysses has a higher percentage of plants with four or less branches on the lower most whorl compared to Julia, Limousine and Baron (table 7). Ulysses also expresses fewer plants with six or more branches on the lower most whorl compared to Limousine and Baron (table 7).

Panicle Type Inflorescence

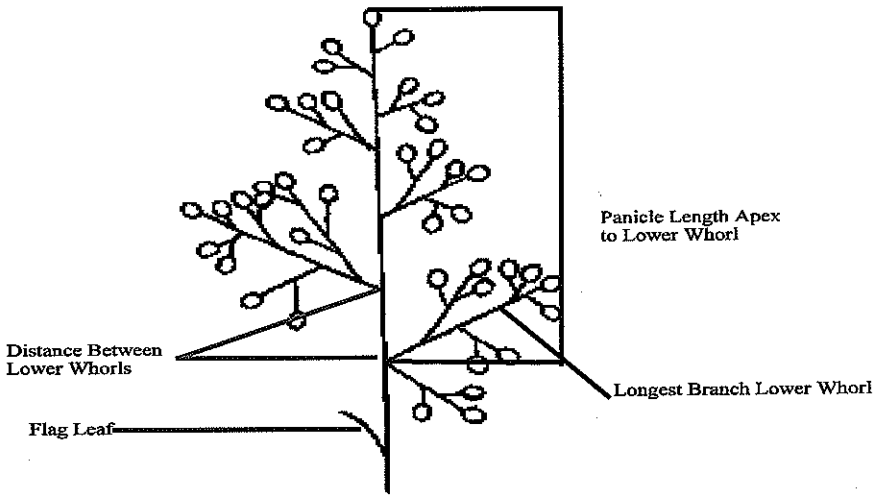

Illustration 1.

12.

Table 1A 2000 Morphological Data

Cultivar	Heading Date (days after April 1)	Anthesis Date (days after April 1)	Genetic Color (1-9 scale; 9=best)	Mature Plant Height (cm)	Plant Width (cm)	Panicle Length (cm)	Flag Leaf Length (cm)	Flag Leaf Width (cm)	Flag Leaf Height (cm)	Flag Leaf Sheath Length (cm)	Flag Leaf Internode Length (cm)	Leaf Blade Length (cm)	Leaf Blade Width (cm)	Leaf Blade Height (cm)	Leaf Sheath Length (cm)
Ulysses	20.00	49.67	7.00	74.07	23.27	51.93	24.40	5.67	37.00	15.23	16.23	24.27	6.33	17.20	11.53
HV 238	30.67	54.00	4.33	65.87	25.63	46.30	25.60	6.67	34.10	14.87	15.93	29.63	7.00	15.17	11.60
Pp H6351	14.00	45.33	6.00	51.63	21.63	35.37	18.53	4.33	28.00	12.63	15.03	19.10	5.00	10.93	9.70
Pp H6370	12.00	44.67	6.00	70.77	19.60	46.93	20.20	4.33	36.33	12.87	18.03	20.47	5.33	15.77	10.27
Pp H7902	28.00	54.33	6.67	59.00	18.90	44.03	20.57	5.00	29.17	14.80	13.33	21.50	6.00	12.93	11.50
Pp H7907	27.67	53.33	4.67	57.10	18.33	43.57	21.23	5.67	28.17	14.77	12.90	21.10	6.00	11.67	11.10
Pp H7921	24.67	52.00	7.67	54.53	22.13	46.67	18.17	5.67	20.10	12.73	8.33	17.43	5.67	8.53	9.23
Pp H7929	24.00	52.00	5.00	55.97	19.70	41.30	19.97	5.00	28.30	13.87	12.97	20.77	5.00	13.20	11.00
Cynthia	13.33	45.00	5.67	71.70	19.57	47.03	20.67	4.67	38.70	13.43	18.93	21.83	5.33	17.50	10.90
Julia	18.33	51.00	4.00	76.87	27.00	47.83	24.17	5.33	44.80	15.57	19.13	26.67	6.33	22.73	12.10
Limousine	20.00	49.00	4.00	54.53	19.37	36.53	18.00	4.33	29.57	12.27	15.60	18.43	5.00	18.80	9.20
Baron	15.33	46.67	4.00	57.63	24.77	40.47	19.90	5.33	31.23	13.93	14.63	19.87	6.33	13.40	10.33
LSD 5%	1.36	1.56	0.42	4.23	2.13	3.12	1.56	0.56	3.11	0.74	1.90	1.86	0.49	2.20	0.79
C.V.	4.18	2.19	5.16	4.78	7.25	5.12	5.36	7.79	6.69	3.80	8.47	5.95	6.20	10.70	5.13

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

▬ significant difference over two years one location.

▬ significant difference over one year one location.

#20030038

Table 1B 2001 Morphological Data

Cultivar	Heading Date (days after April 1)	Anthesis Date (days after April 1)	Genetic Color (1-9 scale; 9=best)	Mature Plant Height (cm)	Plant Width (cm)	Panicle Length (cm)	Flag Leaf Length (cm)	Flag Leaf Width (cm)	Flag Leaf Height (cm)	Flag Leaf Sheath Length (cm)	Flag Leaf Internode Length (cm)	Leaf Blade Length (cm)	Leaf Blade Width (cm)	Leaf Blade Height (cm)	Leaf Sheath Length (cm)
Ulysses	26.67	49.33	5.33	72.93	46.23	46.70	24.90	3.33	41.23	15.87	15.83	26.77	4.33	21.80	12.67
HV 238	33.00	53.67	5.00	76.87	55.17	47.10	27.67	4.00	45.23	16.00	16.57	34.50	4.67	25.67	13.93
Pp H6351	24.33	46.67	7.00	61.47	45.23	43.43	21.90	3.00	32.30	14.03	15.80	23.17	3.00	12.77	10.73
Pp H6370	14.33	42.00	5.00	67.93	42.00	44.63	20.63	2.67	37.80	12.90	16.00	21.83	3.00	18.53	11.33
Pp H7902	29.67	50.67	5.33	64.83	46.00	45.80	22.30	3.67	34.50	15.40	13.10	24.80	4.00	18.03	12.83
Pp H7907	30.00	51.00	5.00	60.03	38.90	41.30	23.53	3.00	34.00	15.90	12.50	26.43	3.67	18.87	13.53
Pp H7921	30.00	50.00	5.67	61.97	47.27	44.23	21.93	3.00	32.20	14.47	11.53	24.40	3.33	17.13	12.20
Pp H7929	25.33	48.00	5.00	59.33	38.37	42.10	23.30	3.33	32.73	15.67	11.27	26.40	4.00	18.60	13.87
Cynthia	13.00	41.33	5.33	69.77	43.17	45.47	21.43	2.67	38.13	13.97	16.37	22.63	3.00	19.57	11.60
Julia	24.67	51.33	4.67	73.40	49.93	40.47	23.53	3.33	46.97	15.70	16.43	28.47	4.00	29.07	13.97
Limousine	29.00	48.33	4.00	51.57	40.50	33.23	22.23	3.00	30.63	14.23	12.90	23.57	3.00	15.40	11.27
Baron	24.67	46.67	4.33	68.73	51.50	45.03	22.30	3.67	38.37	15.03	17.33	22.90	4.33	17.63	12.13
LSD 5%	1.06	0.94	0.55	2.77	4.05	2.78	1.23	0.62	2.36	0.86	1.12	1.50	0.49	2.14	0.75
C.V.	2.99	1.38	7.28	2.99	6.47	4.60	3.81	13.42	4.54	4.18	5.22	4.13	9.12	8.04	4.36

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

▬ significant difference over two years one location.

▬ significant difference over one year one location.

14.

Table 2A 2000 Laboratory Morphological Data

Cultivar	Lemma Length (mm)	Lemma Width (mm)	Florets per Spikelet	Spikelet Length (mm)	Length of Longest Whorl (mm)	Length of Medium Whorl (mm)	Length of Shortest Whorl (mm)	Distance Between Lower Most Whorls (mm)	Number of Spikelets on the Longest Whorl	Spikelets per Panicle	Length of Panicle From Lower Most Whorl to Tip (mm)	Basal Hair Length (mm)
Ulysses	3.70	0.81	4.33	5.56	81.93	59.72	45.48	33.34	22.33	198.33	140.01	4.11
HV 238	3.17	0.66	4.33	4.81	87.97	63.53	46.81	36.32	24.00	261.00	158.62	3.53
Pp H6351	3.36	0.62	4.00	4.76	51.46	33.21	21.77	26.93	14.33	132.00	104.43	3.53
Pp H6370	3.66	0.73	5.00	5.52	63.71	45.50	31.87	28.14	13.33	134.00	122.88	3.87
Pp H7902	4.10	0.79	4.00	5.75	52.92	37.44	27.60	25.39	12.67	126.67	104.10	4.17
Pp H7907	3.68	0.81	4.67	5.40	56.12	42.12	31.22	27.29	12.00	122.67	104.08	3.91
Pp H7921	3.50	0.75	4.00	5.21	53.35	38.80	28.78	22.97	14.33	137.67	98.95	4.05
Pp H7929	3.51	0.74	4.33	5.22	61.34	42.37	30.03	27.14	13.33	124.67	112.86	3.62
Cynthia	3.67	0.72	5.00	5.38	62.87	45.51	32.10	28.09	13.00	134.33	120.79	3.67
Julia	3.32	0.67	5.00	5.24	80.09	59.11	41.67	34.93	33.00	267.00	139.41	3.65
Limousine	3.01	0.60	4.00	4.42	42.55	29.65	19.50	19.11	15.33	141.67	81.07	3.12
Baron	3.72	0.76	5.00	5.61	58.74	43.23	31.87	23.18	12.33	131.67	100.87	3.58
LSD 5%	0.12	0.04	0.47	0.23	3.26	3.12	2.68	1.71	1.64	14.46	6.25	0.58
C.V.	2.51	4.03	7.49	3.20	3.67	4.78	5.51	4.50	6.96	6.34	3.88	11.13

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

▬ significant difference over two years one location.

▬ significant difference over one year one location.

Table 2B 2001 Laboratory Morphological Data

Cultivar	Lemma Length (mm)	Lemma Width (mm)	Florets per Spikelet	Spikelet Length (mm)	Length of Longest Whorl (mm)	Length of Meduim Whorl (mm)	Length of Shortest Whorl (mm)	Distance Between Lower Most Whorls (mm)	Number of Spikelets on the Longest Whorl	Spikelets per Panicle	Length of Panicle from Lower Most Whorl to Tip (mm)	Basal Hair Length (mm)
Ulysses	3.59	0.69	4.00	4.85	73.20	52.66	35.80	34.17	18.00	185.67	129.33	2.79
HV 238	3.16	0.68	4.33	4.43	89.26	61.11	41.00	39.90	23.33	298.67	175.55	2.21
Pp H6351	3.34	0.65	3.67	4.67	62.84	42.24	24.81	32.22	19.00	199.00	128.42	2.49
Pp H6370	3.62	0.71	4.33	4.94	63.91	44.11	26.84	30.52	12.67	150.67	129.54	2.84
Pp H7902	3.84	0.71	4.33	5.04	55.47	39.26	24.28	28.14	12.33	145.00	116.27	2.95
Pp H7907	3.53	0.76	4.33	4.88	61.01	44.30	28.89	28.25	12.67	147.67	119.68	2.63
Pp H7921	3.38	0.72	3.67	4.59	55.14	39.19	25.32	27.24	13.00	158.67	114.52	2.58
Pp H7929	3.33	0.69	4.00	4.59	66.65	45.87	28.75	30.38	13.67	152.33	130.67	2.57
Cynthia	3.60	0.68	4.33	4.78	58.75	42.41	26.49	28.95	11.67	135.33	119.46	2.70
Julia	3.01	0.62	4.67	4.10	77.14	54.85	34.28	34.40	29.33	281.33	141.15	2.81
Limousine	2.98	0.59	3.67	4.04	46.03	32.15	18.85	22.78	17.33	208.67	95.59	2.29
Baron	3.61	0.72	4.67	4.78	55.96	40.84	27.59	23.71	12.67	165.67	107.95	2.81
LSD 5%	0.14	0.05	0.76	0.37	4.92	3.87	3.55	1.94	1.86	28.26	7.81	0.66
C.V.	3.06	5.97	13.15	5.91	5.30	5.71	7.72	4.66	7.45	9.99	4.40	18.2

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

▬ significant difference over two years one location.

▬ significant difference over one year one location.

Table 3A 2000 Additional Morphological Measurements of the Panicle

Cultivar	Growth Habit % Erect	Anther Color % Purple	Panicle Orientation % Upright	Panicle Color % Red	Panicle Type % Open	Panicle Collar % Closed	Panicle Branch Lower Whorl % Drooping	Panicle Branch Lower Whorl % Horizontal	Panicle Branch Lower Whorl % Ascending	Shape of Rachis % Straight	Seed Weight mg per 10,000 Seeds
Ulysses	95	20	8	2	100	42	0	0	100	100	2850
HV 238	0	78	0	100	100	10	0	0	100	100	4180
Pp H6351	0	28	12	0	100	47	7	70	23	92	2320
Pp H6370	100	97	0	0	0	62	0	100	0	98	3870
Pp H7902	97	2	87	2	100	75	0	0	100	100	5730
Pp H7907	73	8	87	15	100	62	0	0	100	98	3390
Pp H7921	98	3	92	0	98	65	0	0	100	98	3450
Pp H7929	68	23	2	0	100	78	0	0	100	98	3900
Cynthia	100	95	0	2	0	43	100	0	0	100	3690
Julia	2	63	7	0	100	83	0	0	100	93	3380
Limousine	98	12	95	2	100	85	100	0	0	98	2520
Baron	0	28	100	0	100	68	3	15	82	98	3650

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

Table 3B

2001 Additional Morphological Measurements of the Panicle

Cultivar	Growth Habit % Erect	Anther Color % Purple	Panicle Orientation % Upright	Panicle Color % Red	Panicle Type % Open	Panicle Collar % Closed	Panicle Branch Lower Whorl % Drooping	Panicle Branch Lower Whorl % Horizontal	Panicle Branch Lower Whorl % Ascending	Shape of Rachis % Straight	Seed Weight mg per 10,000 Seeds
Ulysses	90	48	0	3	100	42	0	73	27	100	3080
HV 238	0	73	0	0	100	10	0	100	0	100	4240
Pp H6351	5	82	0	0	100	47	0	100	0	100	2340
Pp H6370	100	93	0	0	0	62	0	100	0	100	4280
Pp H7902	100	58	0	0	100	75	0	93	7	100	5900
Pp H7907	83	63	3	7	100	62	0	87	13	100	3470
Pp H7921	100	52	0	2	98	65	0	100	0	100	3330
Pp H7929	60	90	0	0	100	78	0	95	5	100	3840
Cynthia	98	78	0	0	0	43	0	100	0	100	3750
Julia	0	95	0	0	100	83	0	68	32	100	3140
Limousine	97	42	0	0	100	85	0	100	0	100	2940
Baron	10	75	0	0	100	68	5	95	0	100	4210

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

Table 4A 2000 Additional Morphological Measurements of the Leaf Blade

Cultivar	Seedling Leaf Sheath Color % Red	Leaf Blade Margin Hairs % Pubescence	Leaf Sheath Collar Hairs % Pubescence	Leaf Sheath Ligule Hairs % Pubescence	Leaf Sheath Margin Hairs % Pubescence	Flag Leaf Position % Ascending	Flag Leaf Position % Horizontal	Flag Leaf Position % Descending	Intermediate Nerves on the Lemma % Distinct
Ulysses	0	0	5	55	0	100	0	0	13
HV 238	0	0	85	92	65	5	0	95	5
Pp H6351	0	2	15	13	18	95	5	0	3
Pp H6370	32	0	32	52	0	0	100	0	42
Pp H7902	60	0	63	50	0	100	0	0	13
Pp H7907	7	0	17	37	0	95	5	0	35
Pp H7921	12	0	15	27	0	88	0	12	10
Pp H7929	10	0	30	43	0	100	0	0	33
Cynthia	5	0	33	43	0	60	20	20	18
Julia	0	0	5	7	0	100	0	0	8
Limousine	0	0	27	8	0	100	0	0	10
Baron	0	0	35	32	0	83	17	0	23

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

Table 5A 2000 Additional Morphological Measurements of the Plant

Cultivar	Winter Color % Light Green	Leaf Blade Green Color % Light Green	Leaf Blade Green Color % Medium Green	Leaf Blade Green Color % Medium Dark Green	Leaf Blade Green Color % Dark Green	Leaf Blade Bluegreen Color % Not Bluegreen	Leaf Blade Bluegreen Color % Moderately Bluegreen	Leaf Blade Bluegreen Color % Bluegreen	Leaf Blade Luster Lower Side % Without Luster	Leaf Blade Luster Upper Side % Without Luster	Percent Apomictic
Ulysses	5	5	3	0	90	0	3	97	5	100	92
HV 238	5	7	92	1	0	0	100	0	3	100	92
Pp H6351	3	7	2	92	0	0	0	100	5	100	93
Pp H6370	0	0	0	100	0	0	0	100	0	100	100
Pp H7902	2	2	3	32	63	0	0	100	3	100	98
Pp H7907	20	17	87	0	5	5	93	2	25	100	78
Pp H7921	0	0	3	0	97	0	0	100	8	100	97
Pp H7929	10	7	90	0	3	2	98	0	17	100	91
Cynthia	3	3	30	67	0	2	98	0	2	100	95
Julia	2	3	97	0	0	2	98	0	20	100	97
Limousine	2	8	92	0	0	2	98	0	13	100	89
Baron	3	2	98	0	0	50	50	0	20	100	96

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

Table 5B

2001 Additional Morphological Measurements of the Plant

Cultivar	Winter Color % Light Green	Leaf Blade Green Color % Light Green	Leaf Blade Green Color % Medium Green	Leaf Blade Green Color % Medium Dark Green	Leaf Blade Green Color % Dark Green	Leaf Blade Bluegreen Color % Not Bluegreen	Leaf Blade Bluegreen Color % Moderately Bluegreen	Leaf Blade Bluegreen Color % Bluegreen	Leaf Blade Luster Lower Side % Without Luster	Leaf Blade Luster Upper Side % Without Luster	Percent Apomictic
Ulysses	7	5	0	2	93	0	2	98	0	100	92
HV 238	7	6	92	2	0	0	100	0	0	100	88
Pp H6351	7	2	2	96	0	0	0	100	0	100	94
Pp H6370	0	0	0	100	0	0	0	100	0	100	97
Pp H7902	2	3	0	33	65	0	0	100	0	100	93
Pp H7907	32	16	77	0	7	3	97	0	0	100	78
Pp H7921	2	0	3	0	97	0	0	100	0	100	95
Pp H7929	15	7	93	0	0	0	100	0	0	100	88
Cynthia	5	3	30	67	0	0	100	0	0	100	95
Julia	2	0	100	0	0	0	100	0	0	100	95
Limousine	3	3	97	0	0	0	100	0	0	100	88
Baron	0	2	98	0	0	100	0	0	0	100	96

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

Table 6A 2000 Additional Observations

Cultivar	Leaf Sheath Glaucosity % Present	Leaf Sheath Margin Roughness % Rough	Leaf Sheath Surface Roughness % Rough	Leaf Blade Hairs Upper Side % Present	Leaf Blade Hairs Lower Side % Present	Leaf Sheath Surface Hairs % Present	Leaf Sheath Keel % Present	Lemma Hairs on Keel % Present	Lemma Hairs Basal End % Present	Lemma Hairs Margin Nerve % Present	Lemma Hairs Midrib Nerve % Present	Lemma Hairs Intermediate Nerve % Present
Ulysses	0	0	0	0	0	0	100	100	100	100	100	100
HV 238	0	0	0	0	0	0	100	100	100	100	100	100
Pp H6351	0	0	0	0	0	0	100	100	100	100	100	100
Pp H6370	0	0	0	0	0	0	100	100	100	100	100	100
Pp H7902	0	0	0	0	0	0	100	100	100	100	100	100
Pp H7907	0	0	0	0	0	0	100	100	100	100	100	100
Pp H7921	0	0	0	0	0	0	100	100	100	100	100	100
Pp H7929	0	0	0	0	0	0	100	100	100	100	100	100
Cynthia	0	0	0	0	0	0	100	100	100	100	100	100
Julia	0	0	0	0	0	0	100	100	100	100	100	100
Limousine	0	0	0	0	0	0	100	100	100	100	100	100
Baron	0	0	0	0	0	0	100	100	100	100	100	100

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation

Table 6B 2001 Additional Observations

Cultivar	Leaf Sheath Glaucosity % Present	Leaf Sheath Margin Roughness % Rough	Leaf Sheath Surface Roughness % Rough	Leaf Blade Hairs Upper Side % Present	Leaf Blade Hairs Lower Side % Present	Leaf Sheath Surface Hairs % Present	Leaf Sheath Keel % Present	Lemma Hairs on Keel % Preseent	Lemma Hairs Basal End % Present	Lemma Haris Margin Nerve % Present	Lemma Hairs Midrib Nerve % Present	Lemma Hairs Intermediate Nerve % Present
Ulysses	0	0	0	0	0	0	100	100	100	100	100	100
HV 238	0	0	0	0	0	0	100	100	100	100	100	100
Pp H6351	0	0	0	0	0	0	100	100	100	100	100	100
Pp H6370	0	0	0	0	0	0	100	100	100	100	100	100
Pp H7902	0	0	0	0	0	0	100	100	100	100	100	100
Pp H7907	0	0	0	0	0	0	100	100	100	100	100	100
Pp H7921	0	0	0	0	0	0	100	100	100	100	100	100
Pp H7929	0	0	0	0	0	0	100	100	100	100	100	100
Cynthia	0	0	0	0	0	0	100	100	100	100	100	100
Julia	0	0	0	0	0	0	100	100	100	100	100	100
Limousine	0	0	0	0	0	0	100	100	100	100	100	100
Baron	0	0	0	0	0	0	100	100	100	100	100	100

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points
■ Cultivar under evaluation

Table 7 Number of Whorls Bottom Branch

Cultivar	Percent Whorl <4 2000	Percent Whorl =5 2000	Percent Whorl >6 2000	Percent Whorl<4 2001	Percent Whorl =5 2001	Percent Whorl >6 2001
Ulysses	62	38	0	51	47	2
HV 238	23	75	2	20	73	7
Pp H6351	19	70	11	10	65	25
Pp H6370	73	27	0	43	57	0
Pp H7902	54	43	4	25	73	2
Pp H7907	48	47	5	15	73	12
Pp H7921	77	23	0	45	55	0
Pp H7929	73	25	2	57	43	0
Cynthia	63	35	2	46	52	2
Julia	53	45	2	29	68	3
Limousine	23	60	17	8	60	32
Baron	25	65	10	17	58	25

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points
■ Cultivar under evaluation

REPRODUCE LOCALLY. Include form number and edition date on all reproductions. FORM APPROVED - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued *(7 U.S.C. 2421)*. The information is held confidential until the certificate is issued *(7 U.S.C. 2426)*.

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
DLF International Seeds		Ulysses
4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	**5. TELEPHONE** *(Include area code)*	**6. FAX** *(Include area code)*
PO Box 229/175 West H Street Halsey, OR 97348 USA	(541) 369-2251	(541) 929-4087
	7. PVPO NUMBER #200300038	

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. **If no, please explain.** ☑ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? **If no, give name of country.** ☑ YES ☐ NO

10. Is the applicant the original owner? ☐ YES ☑ NO **If no, please answer one of the following:**

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?
☐ YES ☐ NO **If no, give name of country**

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?
☑ YES ☐ NO **If no, give name of country**

11. Additional explanation on ownership *(Trace ownership from original breeder to current owner. Use the reverse for extra space if needed)*:

The ownership of Ulysses Kentucky bluegrass was trnsferred to DLF International Seeds following the sale of Advanta Seeds USA to DLF Trifolium. DLF International Seeds, an Oregon corporation, is a wholly owned subsidary of DLF Trifolium.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

REPRODUCE LOCALLY. include form number and date on all reproductions. Form Approved OMB NO 0581-0055

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT F
DECLARATION REGARDING DEPOSIT

NAME OF OWNER (S)	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country)	TEMPORARY OR EXPERIMENTAL DESIGNATION
DLF International Seeds	PO Box 229/175 West H Street Halsey, OR 97348 USA	VARIETY NAME Ulysses
NAME OF OWNER REPRESENTATIVE (S) Stephen W. Johnson	ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) PO Box 229/175 West H Street Halsey, OR 97348 USA	[redacted] PVPO NUMBER #200300038

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

Stephen W Johnson
Signature

November 13, 2007
Date

ST-470-F (04-03) designed by the Plant Variety Protection Office using Microsoft Word 2002.

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